

## OVERVIEW

Chemclene Corporation currently has interim status as a TSD/HWM Facility. The need for our obtaining this designation arose from our storage of Chloronated Solvent wastes prior to recycling. We also store small amounts of other wastes which are not treated in any way. For these wastes, we act as a transfer station.

In our original Part A application, several waste type designation and capacity errors were made. These were corrected on February 18, 1982. Upon review of our presently effective Part A, we discover several omissions and inconsistencies. These have occurred as a result of some misunderstanding of some definitions and details of the regulations involving EPA Hazardous Waste Numbers. With this Part B application, we are submitting a modified Part A to reflect the following:

1. Inclusion of "U" numbers for those specific chemicals found in our "F" and "D" listings.
2. Inclusion of a proposed solidification building for T01 - Treatment in Tanks.
3. Inclusion of a number of "D" and "K" listed wastes to be stored and treated in the new addition to the facility.
4. Addition of the T01 treatment code for certain of the wastes to be handled at the facility.

Overall, this represents only a 17% increase in the estimated number of gallons to be handled at the facility, plus 200 tons (approximately 10 truckloads) of "D" and "K" listed wastes to be solidified per year.

## GENERAL REQUIREMENTS

## 7. Operational Concept Report.

## A. Relationship at Facility to Installation.

Chemclene Corporation, founded in 1946, is a distributor of virgin and reclaimed chlorinated solvents as well as specialty blends of these chemicals. The virgin materials are purchased from the manufacturers and are brought to our facility in bulk from the manufacturer's terminals. The reclaimed material is produced on site and stored either in drums or bulk tanks.

In order to produce the reclaimed solvents, we take in waste chlorinated solvents. These solvents are stored prior to processing and it is this storage phase of our installation which is currently under interim status and the first reason for submission of this Part B application.

The end product of producing reclaimed solvents, aside from the solvents themselves, are chlorinated still bottoms (F002). We currently have to ship these wastes off site for treatment and disposal at another approved facility. The second reason for submission of this Part B application and a revised Part A, is to propose modification of our facility to include on site treatment of our own wastes and a limited volume and range of other compatible wastes. This would be accomplished in a specially designed and engineered building and would be simple solidification with lime/fly ash type material. (See modified Part A Listing - Form 3, pages 3A and 3B)

B. General Facility Description. Since 1952, the installation has been in its present location in Chester County, PA. The installation itself is comprised of two principle buildings and an office trailer. The active portion of the installation is surrounded by either an 8' high chain link fence with barbed wire or an 8' high wood fence.

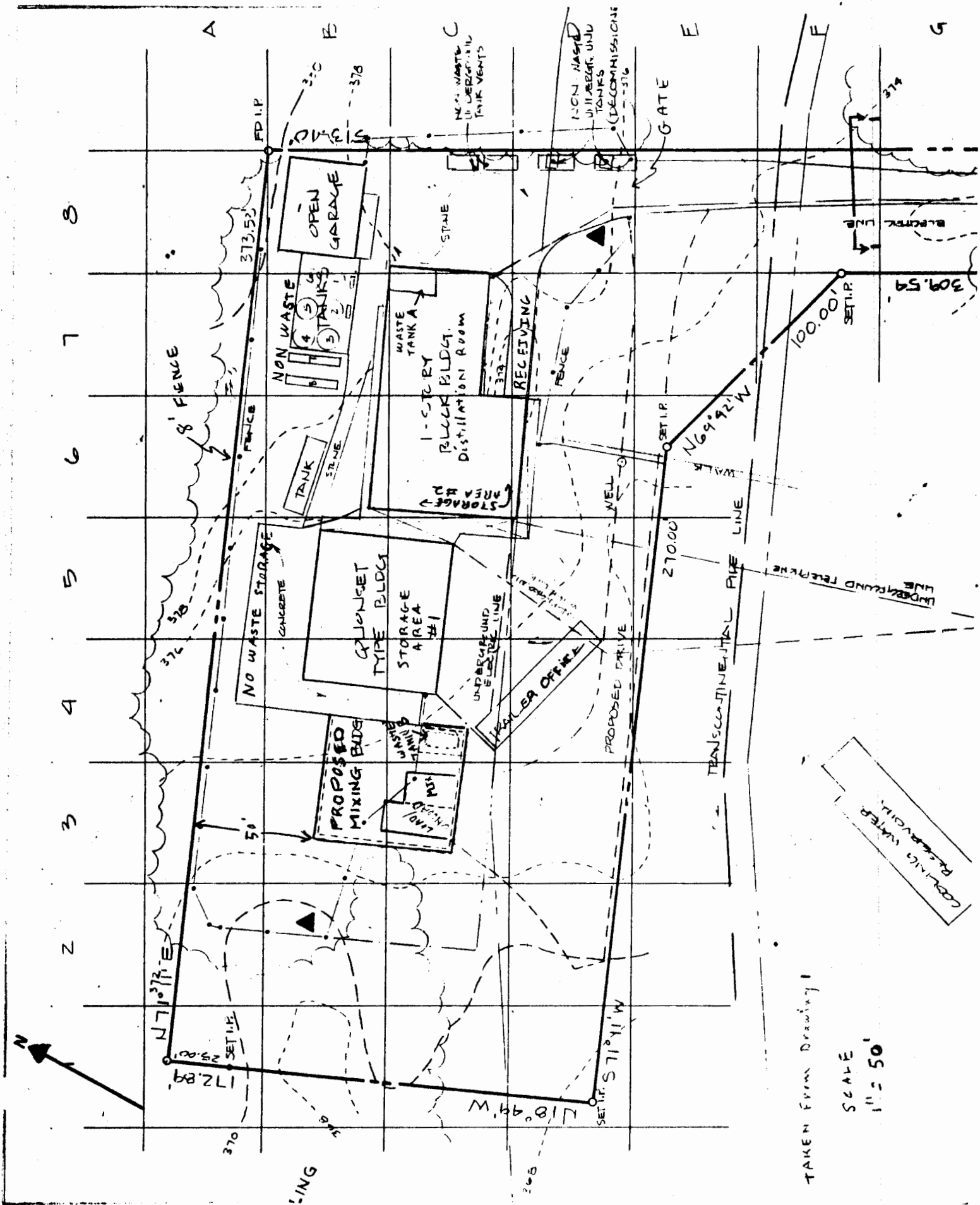
For convenience, the facility building portion of the facility drawing has been reproduced and is included as page 30.

The main building is constructed of concrete block with a 4" to 6" thick concrete floor. This building houses the process equipment, general storage, a boiler room and an office for plant administration. It also houses Waste Storage Tank A and associated containment which is in the process of being installed. This tank represents an upgrading of equipment only and does not increase our SO<sub>2</sub> capacity. The tanks it replaces have been taken out of service. (See also Tanks, page 49.

The second primary building, designated Storage Area #1, is a steel quanset type building with a 4" to 6" thick concrete floor. It is here that the majority of the wastes are stored. This building is contained by means of an 8" high concrete wall which surrounds the floor area just inside the outer walls.

Connecting these two buildings is a covered concrete pad which is used for the balance of the storage of waste in containers. It is designated Storage Area #2 but is also the receiving area and the temporary holding area. Like the Storage Area #1, this area is surrounded by containment walls.

The receiving area is in the process of being upgraded. The existing crushed stone receiving area is to be reconstructed as a Portland cement concrete driveway with concrete curb walls on each side. The extent of the new concrete driveway will be from the receiving area east to the easterly end of the distillation room, a distance of approximately 50 feet. Existing driveway elevations will be maintained as much as possible and a raised concrete bump will be constructed at the east end of the new concrete driveway in order to



TAKEN FROM Drawing 1

SCALE  
1" = 50'

divert the runoff from the remainder of the crushed stone driveway and parking area away from the new concrete driveway.

The new concrete receiving area shall be constructed to a thickness of 8 inches using a concrete mix conforming to the requirements of Class AA concrete, in accordance with Pennsylvania Department of Transportation (PennDOT) specifications. The concrete shall have a minimum 28 day compressive strength of 3,750 pounds per square inch and shall be reinforced with one layer of 6 x 6 x 6/6 wire mesh. A section of the proposed concrete driveway is shown in the building layout drawing. (Drawing 2 of 2)

The concrete curb walls shall be 8 inches thick and extend a minimum of 18 inches below the elevation of the new concrete driveway. The concrete curb walls shall also use PennDOT Class AA concrete, but do not require reinforcement. Expansion joints shall be placed 25 feet on center in both the driveway and the curb walls, using a preformed expansion joint material, in accordance with PennDOT specification requirements.

A concrete lined trench shall be constructed across the driveway parallel to and approximately 18 inches away from the receiving area wall. The purpose of the trench is twofold: 1) to collect storm water runoff; and 2) to act as collection in the event of a spill during unloading of delivery trucks. This trench drain shall have 8 inch thick sides and bottom and shall slope from north to south, with depth varying from 4 to 8 inches. The trench shall be 12 inches in width and shall be covered with an open slotted steel trench drain cover plate. Details of this trench are shown on the accompanying building layout drawing. (Drawing 2 of 2)

Existing Pennsylvania DER regulations require that receiving and storage areas for liquid wastes provide a containment equal in volume to at least 10 percent of the total volume of the liquid present when a maximum number of containers are involved. The maximum size delivery truck servicing Chemcene contains a total of 80 fifty-five gallon containers, or a total of 4400 gallons of liquid. Therefore, the minimum required containment is 440 gallons or 60 cubic feet, since there are 7.48 gallons in a cubic foot. This containment area, as currently designed, will hold 3,780+ gallons.

In addition, the containment must provide further for possible accumulation of precipitation in the highly unlikely event that a spill would occur during a period of heavy rainfall. For all practical purposes, the design of additional storage for precipitation must take into account the 100 year storm. In southeastern Pennsylvania, maximum accumulation for the 100 year storm is considered to be 6 inches of rain in a four hour time period. Therefore, an additional six inches should be added to the depth of containment.

A flat area 12 feet wide and 6 feet long will be provided in the concrete driveway immediately to the east of the trench drain. To provide minimum containment in this area for a spill, a curb height of 12 inches is required. However, the top of the curb will be at elevation 375, or 18 inches above the surface of the driveway, on both sides of the driveway. The top of curb elevation will also be maintained at elevation 375 until it meets the existing grade. Therefore, additional containment volume, well in excess of the minimum required, will be provided.

At the south (or deeper) end of the trench, a 2 inch drain pipe will be installed. This pipe will be connected to a locking valve which will be capable of being opened only by authorized personnel.

This valve will be in the closed and locked position at all times. Should a spill occur in the receiving area of the driveway, the accumulated liquid will be pumped either into drums or into Waste Tank A. The area will then be decontaminated using suction from our portable vacuum tank. Accumulated rain water will be released through the 2" valve into a french drain arrangement should it be determined that it contains no hazardous constituents.

The proposed solidification building will be a fabricated steel building with specially designed floor and loading area. In addition to the solidification process equipment, it will contain a 6,000 gallon tank and associated containment structure as well as space for the storage of 192 drums. The contents of the tank and drums will be waste material to be solidified. In addition to the containment for the tank, the entire floor will be contained by means of a 6" high concrete wall around the entire floor area to contain any spilled or leaked material from the drum storage.

#### C. Daily Operational Methodology

1. Preface - For purposes of clarity, the operational methodology in four sections. First, the methodology used for waste received and stored which is destined for reclamation. Second, other wastes which are simply stored and then transported to another HWM/TSD facility. Third, those wastes generated by the reclamation process. Fourth, those wastes which we are proposing to receive and store which are destined only for solidification.

2. Overview - The majority (91%) of the wastes currently received at our facility are chlorinated solvent wastes. We do have customers who generate small quantities of other wastes, and as a service to them,

we transport and store those other wastes. For these, we act as a transfer station, accumulating these wastes only until an economical shipping is reached. The drums are then transported to another HWM/TSD facility for treatment and disposal.

### 3. Wastes destined for recycling

A. Transportation - We are the transporter for 95% of the waste brought to our facility. Of all recyclable waste received, 93% is in drums and the balance is brought to us by other transporters as bulk liquids. We presently transport drums only. All bulk liquids and some drums are brought to us by other transporters. Only recyclable waste is presently accepted in bulk.

#### B. Receiving.

(i). Drums - After checking the hazardous waste manifest for accuracy, the drums are inspected, off loaded and placed in a temporary holding area. This is done so that the waste analysis plan can be initiated.

At the same time, internal drum control documents are prepared and the drums receive a second label which is used for internal control of the movement and storage of drums.

(ii). Bulk liquids. We presently receive 2 to 4 shipments per year of bulk recyclable chlorinated solvent wastes. These shipments have varied from 500 gallons to 3000 gallons and were pumped off the truck into the storage tank in the processing room. Samples are taken prior to offloading according to the waste analysis plan and the operating record is updated.



### C. Storage.

(i). Drums - Once the drums have been sampled and checked for integrity, they are moved to the storage area. There, they are placed on pallets and put into their storage location which is then noted in the operating record and a master layout board which is then noted in the operating record and a master layout board which shows the exact location of each lot of drums.

The drums are held in storage until processing occurs. During this period of time, the drums are formally inspected weekly and informally on a daily basis. They are not opened again until they are removed from storage.

(ii). Bulk - The recyclable bulk liquids, as mentioned in B(ii), are stored in the tank in the distillation room. Material is removed from these tanks by pump and fed directly into the process equipment.

### 4. Wastes destined for storage only.

A. Preface - Wastes other than recyclable wastes are only stored until we can accumulate enough to make economical shipping quantities. As with drums of other wastes, these wastes are not accepted unless they are in sound condition. These wastes, at present, are only received in drums.

B. Receiving - Drums containing other wastes are inspected upon receipt. Our internal drum control forms are completed and the hazardous waste manifest is checked for accuracy. The drums are placed initially in the temporary holding area and applicable portions of the waste analysis plan are initiated.

C. Storage - These wastes are stored on pallets, in cells designed to prevent intermingling of potentially incompatible wastes. The corrosive cell, which contains only acidic corrosives will hold 36 drums (1980 gallons) and its containment will hold 285 gallons. The cell for ignitable wastes holds 48 drums (2640 gallons) and its containment capacity is 347 gallons. Concrete base and walls are used for containment. When the cell is full the drums are removed and transported to an approved facility for treatment and disposal.

5. Wastes generated by the facility:

A. Overview - As a recycler of chlorinated solvents, we generate chlorinated still bottoms from our process equipment once the solvent has been removed from the original waste. When a particular batch of waste has been processed to completion, the still bottoms are pumped into drums, labeled and recorded in the operating record.

B. Storage - Drums of waste generated by the distillation process are presently placed in designated storage areas within our storage facility. These are accumulated until appropriated shipping quantities are reached. They are then removed from storage and shipped to another TSD facility for treatment and disposal.

6. Wastes destined for solidification only (proposed).

A. Overview - At present, we anticipate receiving the majority of this type of waste in drums. The proposed facility is, however, designed for the safe receipt of bulk wastes of this type whether solids or liquids. Receiving and storage of this class of waste are described below and the solidification process is described in #7(E), page 37.

B. Receiving - (i). Drums will be received at the present receiving area. As with all other drummed waste, the condition of the drum is inspected, the manifest is reviewed and, if all is in order, the drums are unloaded and placed in the temporary holding area where the Waste Analysis Plan is initiated.

(ii). Bulk material to be solidified will be received at the loading/unloading area of the new building. Appropriate portions of the waste analysis plan will be carried out prior to unloading. If the waste is pumpable, it will be placed in Waste Tank B. If the material is more of a solid (slurry or sludge), it will be unloaded directly into the mixing tank using a specially built bucket on a backhoe.

C. Storage.

(i). Drums of waste to be solidified will be stored on pallets in the solidification building until a sufficient quantity is accumulated to begin the solidification process.

(ii). Bulk liquids will be stored in Waste Tank B until treatment and bulk sludges and slurries will be solidified immediately.

D. Expected waste types, sources and volumes - (i). Overview. Part IV of Part A, Form 3 details the waste #'s and estimated annual volume of wastes we expect to receive. Sources of wastes are listed in the waste characterization section, page 83.

E. Unit Processes.

(i). Preface. This is the additional area for which we seek permit approval. Up to this point, we were applying only as a storage facility. We now wish to amend our Part A to include T01 - Treatment in Tanks.

(ii). Overview. As mentioned in subsection 7(c)(5) of this application are now sending our still bottoms, as liquids in drums to other TSD facilities for treatment and disposal. After considerable study and review we feel we have the technical capability and the need to carry out the treatment portion ourselves without any additional risk to the environment. In fact, a reduction of such risk can be seen by solidifying our waste ourselves. We are also requesting permitting to solidify certain other waste types which are compatible with our own. Careful selection of the other types of wastes to be received for solidification eliminates the potential of accidental mixing potentially incompatible waste types.

(iii). Included on page 40, is a flow diagram of the process we intend to use.

(iv). Description. Generally the proposed solidification building has been designed specifically for the purpose intended. Some of the features include:

- Sloped loading area for dump trailers.

- Sloped area for mixing tank.

- Containment walls around entire floor.

- Specialized mixing equipment to eliminate dust problem.

- Curbed vehicle entrance to prevent run-on.

F. Process - The solidification process may not be operated daily. We currently anticipate that one to two loads (20 tons each) per month will be generated. When enough waste material has been accumulated in the storage area to justify the operation of the process, the drums to be solidified will be opened and the contents removed by means of a portable vacuum tank or other transfer pump. The liquid will be

pumped either from a tank or drums to the auger screw mounted on the bottom of the lime/fly ash tank. This screw system is similar to that found on certain cement delivery trucks where cement is mixed on the job.

This tank would then be opened as would the valve controlling the liquid flow. The auger would be turned on and the mixture of lime/fly ash and liquid waste would be augered into the open top mixing tank.

By mixing liquid and ash at the source, in a closed compartment, escape of dust is eliminated. Where solid materials, such as various sludges, are to be solidified, the drums will be opened and dumped directly into the mixing tank. When the box is approximately two thirds full, a backhoe will be utilized for final mixing and transfer of the solid material from the mixing box to the dump trailer. During operation, several "aprons" will be in place to prevent containment wall and onto the floor. Where wastes to be solidified are stored in bulk, this material will be pumped to the mixing head of the screw auger and processed as above.



8. Site Location Map - Drawing # 1
9. Facility Layout - Drawing # 2
10. Topographic Map - Drawing # 2
11. Map and Drawing Requirements - Both drawings conform to the specifications and requirements of 75.265 (z)(18)(ii).
12. Specifications, reports and Narratives -
  - a. Complete construction design calculations have not been made as of this date. The following basic specifications have been established for the floor and containment system:
    - Floor to be 4" thick (min.) in all areas except (1) under Waste Tank B and the Lime/fly ash silo where 12" concrete will be used and (2) in the mixing tank area and the load/unload area where 8" concrete will be used.
    - Minimal use of expansion joints is to prevail and where used, they are to be sealed with a material which is impervious to the waste stored
    - Minimum of 6" containment wall to surround the entire floor area.
  - B. Of primary concern during the construction of the proposed solidification building will be quality control of the floor material. The concrete used will be tested in accordance with the 28 day compressive strength test to insure compliance with Class AA, 3750 psi concrete. This test will be certified by a registered PE. Ongoing construction reporting to DER will be done in accordance with the regulations.
  - C. Initial drawings to be given to the contractor for design purposes will be drawings 1 and 2 enclosed along with the narrative.

13. Drawings and/or Specifications relating to:

A. thru E. - - - Not Applicable

F. Location and limits of construction by grid controls -

See Drawing # 1

G. Easements and title, deed or usage restrictions - None  
that we are aware of.

H. thru K. - - - Not Applicable

L. Cross sections - Drawing # 1

M. Not Applicable

N. Process Diagrams



## CONTAINERS

### A. Containerized Wastes.

1. Wastes which are toxic only are received in drums with the DOT spec. numbers of 17H, 17E or 5B. These are all 18 guage (min.) drums of the 55 or 30 gallon size. Waste numbers included in this group are: F001, F002, F006, D004-D011, K002-K008, U037, U077, U080, U121, U210, U211, U226, U227, U228.

2. Wastes which are ignitable only or ignitable and toxic are received in drums with the DOT Spec. numbers of 17H, 17E or 5B. These are all 18 guage (min.) drums of the 55 or 30 gallon size. Waste numbers included in this group are: D001, F003, F005, U002, U031, U056, U057, U070, U112, U117, U140, U154, U159, U161, U196, U220, U239.

3. Wastes which are corrosive are received in drums with the DOT Spec. numbers of E6637, SP6637, or E7072. These are Poly drums in the 55 or 30 gallon size. Waste numbers in this group include: D002, K062.

4. The maximum number of containers stored at the facility at any given time would be 36 corrosive, 48 ignitable and 1084 toxic. This last figure includes 192 drums to be stored in the proposed addition to the facility. All others are stored in the existing facility.

### B. Description of container management practices.

1. Assurance of receipt of sound drums.

a. We are the transporters for 95% of the drummed waste brought to our facility. As such, to comply with transporter regulations and requirements, we insist that the waste be placed in sound drums by the generator prior to transport. Upon arriving at the generators facility, the driver inspects each drum for any sign of damage, defect or potential problem. Should such a condition be detected, the drum is

not accepted for transportation until the contents have been placed into a sound drum. This detailed pretransport inspection helps insure that the drums arriving at our facility are in good condition.

b. When wastes are brought to our facility by other transporters, the drums are inspected prior to off loading. In addition to inspecting the drums, the receiver checks the bed of the truck for signs of leakage or spillage which may have occurred in transit. Should this condition exist or if unsound drums are found, the drums are marked for immediate redrumming. If the drum cannot be safely moved without causing leaking, it is redrums in place.

2. Opening - Drums are opened only to add or remove waste, as in sampling or redruming. Drums are opened slowly to allow for the gradual release of any pressure or vacuum which may have developed. Drums are not opened while in storage.

3. Handling - Drums are moved within the facility either by a hand operated drum dolly or by a specially designed "drum grabber" which lifts the drum by the chins without squeezing the drum. (See Appendix for specification.)

4. Inspection - Whether this takes place at our facility or at the generators location, drums are checked for the following:

Excessive rusting.

Kinks, dents or holes.

Paint blisters.

Tightness of drum closure.

Pooled liquid under or around the drum.

Leaking when drum is moved.

5. Emergency Response - Upon detecting leaking or spilled material the offending drum is located and the PPC Plan is enacted immediately.

2. Container Storage Area.

A. The underlying base of the containment is concrete with a thickness of 4" to 6". The facility is currently engaged in an upgrading program to detect and correct potential problems with the floor which may have developed over the years. Areas of the floor which appear to be cracked to a significant degree are being removed and replaced with new concrete. Where hairline cracks are detected, they are filled with a sealant which is resistant to the waste stored. Expansion joints are filled with this same sealant. When this work has been completed, the entire floor will be coated with an epoxy based or similar sealant.

The containment system in Storage Areas 1 and 2, the receiving area and the distillation room. The containment capacity of this area is in excess of 12,000 gallons. Maximum capacity of this area, given the configuration requirements, is 976 drums or 53,680 gallons. Required containment is 5,368.

B. In all storage areas, drums containing waste materials are to be stored on pallets so that they do not contact any standing liquids should there be any present.

C. The containment system of the proposed building has a capacity of 5,044 gallons. Maximum number of drums to be stored in this building is 192 or 10,560 gallons. The required containment capacity is 1,056 gallons.

D. All waste storage areas are under roof so that no precipitation can reach the containment area. The containment walls prevent run on.

E. Testing management procedures for accumulated liquids.

1. If a leak or spill occurs the leaked or spilled material is immediately absorbed using absorbent pillows. The source of the spilled material is located and dealt with as in the PPC plan via redrumsing its contents. Should a larger spill or leak occur, in addition to diking with absorbent pillows, the portable vacuum unit is used to remove other excess material from the containment system.

2. Since the source of the leaked or spilled material is determinable the waste type is also determinable and if the spilled or leaked material can be recovered in liquid form, it is put into a sound drum. If it is absorbed via absorbent pillows, they are disposed of as prescribed by regulation. Since run on, into the container storage area does not occur, discussion of collection and disposal of this material is not applicable.

3. Description of Area. A detailed drawing of the container storage area is found on drawing #2.

4. Sample Inspections Form is found on page 82.

5. Procedures for treatment, storage and handling of incompatible wastes.

A. The only time that a waste would be placed in a drum, other than the drum it was shipped in, would be in the event of a leak. In that case, the spilled or leaked material and the material remaining in the original drum are placed either in a fully reconditioned drum or in a drum which contained identical waste.

B. General - As stated previously, 91% of the wastes handled at our facility are of the F001 and F002 classification. Materials within these waste classes are not potentially incompatible with each other. Incompatibility may exist, however, between these wastes and other waste types. It is therefore our posture to keep the 9% of other wastes, segregated and separated, according to regulation, from each other and the F001 and F002 wastes.

C. Acidic corrosive wastes are placed in a cell, separated from all other wastes by a containment wall which will not allow spilled or leaked liquids to leave this specific cell. This cell will hold 36 drums or 1980 gallons and the containment will hold 420 gallons or 25% of the stored liquid.

D. Ignitable wastes are also placed in a cell, separated from all other wastes by a containment wall which does not allow leaked or spilled liquid to migrate to another cell. This cell will hold 48 drums or 2640 gallons and the containment area will hold 510 gallons or 25% of the stored liquid.

6. Special procedures for treating, storing and handling ignitable and reactive wastes.

A. Ignitable wastes are stored in a distinct cell as described in 5(D) above and on page . The container height does exceed 6' and the drums are grouped such that the width and depth of a group does not exceed 2 drums (4') x 6 drums (12'). There are two such groupings within the ignitable cell separated from each other and the adjacent drums by a 5' aisle. The main aisle is 13' 6" wide.

B. We do not accept wastes classed as reactive.

7. Weighing and measuring methods.

A. Wastes arriving at the facility in drums are treated by "item count" and volume (55 gallons per drum). No weighing is necessary.

B. Wastes arriving in bulk are measured for volume in the transport vehicle and again in the storage tank to assure accuracy. No weighing is necessary.

8. Closure - The facility closure plan is found on page 72.

## TANKS

A. Preface - There are two tanks to be discussed in this section. Both are identical in terms of their specifications, design and their containment structure, except that Tank B is a single compartment. They differ only in their use.

Tank A, located in the distillation room, is used to store only waste destined to be recycled (F001 & F002). This tank is to be installed shortly as a replacement for a number of existing tanks which have been taken out of service.

Tank B, located in the proposed solidification building, will be used to store material destined for solidification. These include F001, F002 and the other compatible waste types listed in Form 3, of the revised Part A application.

None of the wastes placed in either tank are potentially incompatible with each other or with the materials of construction of the tanks.

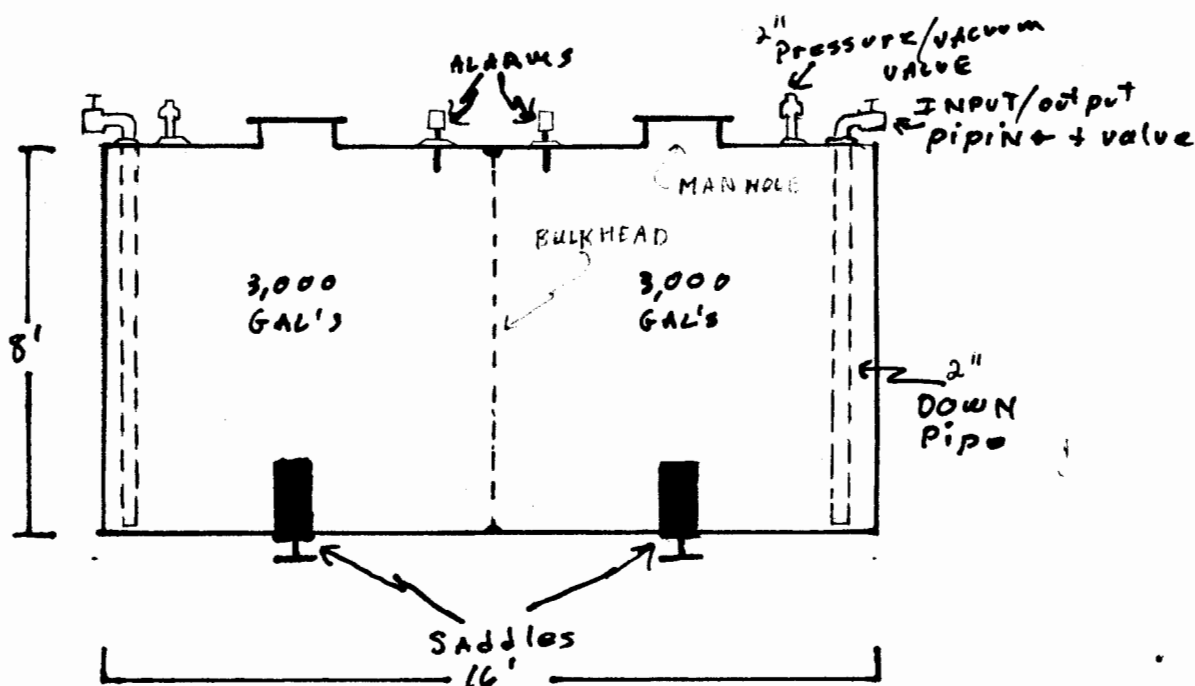
### B. Requirements.

#### 1. Design Specifications.

The tanks used at this facility for waste storage are 6000 gallon tanks. Tank A contains two equal compartments and Tank B is one. Each compartment has an 18" manhole. This tank is 8 ft. in diameter, 16 ft. long and sits in the horizontal position (cylindrical center line parallel to the floor) on two steel saddles. (See Appendix for design drawing and specifications of saddles) The tank is constructed of mild, carbon steel with a shell thickness of  $\frac{1}{4}$  inch and a head thickness of  $\frac{5}{16}$  inch in accordance with the specifications of the Underwriters Laboratory.

## 2. Piping, Instrumentation and Process Flow.

There are no bottom drains on these tanks so as to eliminate valve failure or misuse as a possible cause of spillage. Waste is pumped into and out of the tanks through a 2 inch pipe. Also installed on the tanks are level alarms that energize a loud bell (>125 db) when the level in the tank comes to within 6 inches of the top and pressure/vacuum vents that release at a pressure of 3 psi and a vacuum loading of 1 oz. Piping, instrumentation and process flow is shown in the diagram below.



Waste tanks A and B are the same except that tank B has no bulkhead and only one inlet, pressure/vacuum valve, alarm and manhole.



### 3. Feed System and Safety Cut-Off.

Waste is pumped into the tanks from drums or a bulk waste truck. This is always done under the supervision of a facility employee (see personnel training program). If necessary, the safety cut-off (inlet valve) is closed by the observer and the feed pump stopped.

### 4. Containment Structure.

The containment structures are shown on the facility drawing. The walls of the building (minimum of 10 feet high) serve as two sides of the containment. These are concrete block in construction and will be parged with a mortar mix 1/2" thick. The other two walls of the containment will be concrete block with the same lining, but only 4 feet high. The floor will be constructed of 4,000 psi concrete, 4 inches thick. The area of the floor under the tank saddles will be 24" wide, 12" thick, reinforced and capable of supporting 40,000 lbs. each. The maximum unit weight of the waste to be stored is 12 lbs/gal. and thus the maximum weight of the tank contents is 72,000 lbs. The empty weight of the tank is 6,000 lbs. The area contained is of sufficient volume to contain the entire contents of the tank at its fullest.

### 5. Inspection Procedures.

The tanks are placed in their containment structures so that there is a minimum of 1 1/2 foot clearance between the tank and the containment walls. Every week, as a part of the weekly inspection of the facility (see copy of the facility inspection log and its procedures section as well as the PPC plan), these tanks shall be inspected visually on the outside for cracks, leaks or corrosion. Once every year, the tanks shall be emptied, the thickness of the shell and heads shall be measured and recorded in the facility inspection log using a sonic

thickness guage and the inside of the tanks inspected for significant corrosion. Thickness measurements shall be made on at least ten different locations on the sides and bottom of each compartment.

#### 6. Tank Evaluation and Repair Plan.

Testing and monitoring techniques are described in No. 5 of this section. If, as a result of these tests and inspections it is determined that tank failure may occur, the tank shall immediately be emptied and inspected internally and externally for signs of loss of integrity; this shall include removal of all corrosion products, a detailed check of metal thickness using a sonic thickness guage and pressurization with air to 5 pci while checking for leaks with a leak detecting liquid. The walls of the tank shall fail the thickness test if their thickness falls below the minimum thickness specified by the Pa. Department of Environmental Resources as specified in (264)(r)(15). If a tank fails any of the above prescribed tests it shall either be repaired or permanently removed from service. If a tank is repaired it shall be done so as to return the tank to its original specifications; the return to these specifications shall be certified by a registered professional engineer.

#### 7. Unloading Areas for Bulk Waste.

The area used for the unloading of drums and the area for loading solidified waste shall be used for the unloading of bulk waste (see facility drawing and general description; i.e., "receiving area").

#### 8. Measuring Facilities for Bulk Waste.

Before any waste is pumped into an on-site waste tank from off-site sources its volume shall be measured and recorded in the facility's

operating log. The volume shall be measured using the appropriate tank capacity charts and measuring stick. This information will be used as further safeguard against the accidental overflow of the tank during filling.

HAZARDOUS WASTE AND MATERIAL TRAINING PROGRAM

for

Chemclene Corporation  
258 N. Phoenixville Pike  
Malvern, PA 19355

## Hazardous Waste and Material Training Program

### I. General.

All personnel that are involved in facility operations will be trained by an emergency coordinator, through on-the-job instruction, according to the following plan. This training will commence on the first day of employment for new employees and continue until all points have been covered and the emergency coordinator feels the employee has a good understanding of the contents of this plan. No employee will be allowed to work unsupervised on a job for which he has received no training. As a part of this training program, each employee will be responsible for a thorough knowledge of this facility's Preparedness, Prevention and Contingency Plan.

### II. Training program.

#### A. Receiving.

1. Before any truck is unloaded, the manifest, labeling and container integrity will be inspected. Any errors or omissions will be reported to an emergency coordinator who will have the option of rejecting the shipment.
2. All drums and tanks will be labelled with a facility label (as well as a hazardous waste label). A facility "manifest" will also be filled out and the data thereon entered into the proper portion of the operating record.
3. The contents of all containers will be generally inspected (appearance, odor, etc.) for waste type. If necessary, all containers will be sampled (according to this facility's Waste Analysis Plan) to make a representative, composite sample for laboratory analysis.
4. Drums will be stored in the appropriate area of the facility at once and their location entered in the proper portion of the operating record.

#### B. Processing procedures.

1. After the contents of a drum are emptied into a still (or emptied for any reason), the inside of the drum must be dry and all labels or markings obliterated or removed. Drums that cannot be reconditioned must have their heads removed so that they can be thoroughly cleaned.
2. Drummed still bottoms are to be labelled at the time of filling with the proper hazardous waste label. There should be no other labels or markings on the drum.
3. Condensate water must be allowed to stand and cool for at least 24 hours before drumming for proper disposal.
4. Covers are to be kept on all receiving tanks all the time.
5. The level of all receiving tanks are to be checked before and after each day's operation.

6. Operating processing equipment (or any part of it, e.g. pumps) is not to be left unattended.
  7. All spills, no matter how small, must be absorbed at once and the soiled absorbant removed to the proper container as soon as possible (at least once a day). All spills greater than one (1) gallon are to be reported to the emergency coordinator at once.
  8. Any operating problems must be reported to an emergency coordinator immediately.
- C. Hazardous material (virgin) handling.
1. Before off-loading into storage tanks, measure tank level or check record book to assure load will fit into tank.
  2. All tanks containing such material are to be measured for quantity and checked for integrity once a week.
  3. Do not leave the vicinity of the truck during the entire loading or unloading process.
  4. After loading or unloading, make sure all line caps are in place and all valves closed.
  5. All spills, no matter how small, are to be absorbed at once and the soiled absorbant removed to the proper container as soon as possible (at least once a day). All spills greater than one (1) gallon are to be reported to the emergency coordinator at once.
- D. Communications/alarm system.
- Due to the small size of the facility there is no alarm system. Help can be summoned (from other employees or the emergency coordinator) within 30 seconds from any portion of the active facility.
1. A phone system between the plant and the office can be used for communications.
  2. Phones are located throughout the facility and can be used to summon help from outside the facility.
- E. Responses to fires.
1. In the event of a fire, the following shall be notified:
    - a. One of the emergency coordinators.
    - b. East Whiteland Fire Co. (number posted by all phones), if deemed necessary.
  2. Use dry chemical or CO<sub>2</sub> fire extinguishers that are located at various points throughout the facility.
  3. Only use water if there is no potential of ground or ground water contamination (e.g. fire on a contained, impervious surface).
- F. Ground or ground water contamination.
- Avoid any ground or ground water contamination; any spill or leak has the potential to cause underground water contamination which may, if sufficiently severe, render a drinking water source unfit for human consumption; contamination that does occur cannot easily be corrected.
1. All spills of any size are to be contained at once.
  2. The spilled material should be absorbed and the used

absorbant removed to suitable containers (e.g. open-top drums).

3. If any soil or other porous material has been contaminated it must also be removed to suitable containers (in the case of a large spill, a backhoe kept at the facility should be used)

4. All spills larger than one (1) gallon should be reported to an emergency coordinator at once.

Chemclene Corporation

Employee Record

JOB TITLE: Facility Foreman

EMPLOYEE:

JOB DESCRIPTION:

I. Qualifications.

The holder of this position must have at least a high school education (4 years of college is preferable), be at least 21 years of age, hold a Class 3 Pennsylvania Driver's License with commensurate experience, be in good physical and mental health and show a keen interest in organization and management or other persons a jobs.

II. Duties.

The holder of this position shall be responsible for supervising, as well as working in, all plant and associated activities. These activities shall include transportation, receiving, shipping, waste sampling and operation of processing equipment.

TRAINING:

I. General.

The holder of this position will receive introductory training through on-the-job instruction given by one of the emergency coordinators. A description of this training is contained in this facility's "Hazardous Waste and Material Training Program" and "Transporter Contingency Plan". Periodic training seminars also held by the emergency coordinators for continuing training.

II. Records.

Introductory on-the-job training:

Type \_\_\_\_\_ Hours \_\_\_\_\_ Passed \_\_\_\_\_ Failed \_\_\_\_\_  
Comments - .

Signed \_\_\_\_\_ Date \_\_\_\_\_



## Chemclene Corporation

## Employee Record

JOB TITLE: Driver

EMPLOYEE:

JOB DESCRIPTION:

I. Qualifications.

The holder of this position must have at least a high school education, be at least 21 years of age, hold a Class 3 Pennsylvania Driver's License with commensurate experience and be in good physical and mental health.

II. Duties.

The holder of this position shall be responsible for working in all plant and associated activities. These activities shall include transportation, receiving, shipping, waste sampling and operation of processing equipment.

TRAINING:

I. General.

The holder of this position will receive introductory training through on-the-job instruction given by one of the emergency coordinators. A description of this training is contained in this facility's "Hazardous Waste and Material Training Program" and "Transporter Contingency Plan". Periodic training seminars will also be held by the emergency coordinators for continuing training.

II. Records.

Introductory on-the-job training:

Type \_\_\_\_\_ Hours \_\_\_\_\_ Passed \_\_\_\_\_ Failed \_\_\_\_\_

Comments -

Signed \_\_\_\_\_ Date \_\_\_\_\_

Chemclene Corporation

Employee Record

JOB TITLE: Process Equipment Technician

EMPLOYEE:

JOB DESCRIPTION:

- I. Qualifications.  
The holder of this position must have at least a high school education, be at least 21 years of age and be in good physical and mental health.
- II. Duties.  
The holder of this position shall be responsible for the operation of processing equipment, waste sampling, shipping and receiving.

TRAINING:

- I. General.  
The holder of this position will receive introductory training through on-the-job instruction given by one of the emergency coordinators. A description of this training is contained in this facility's "Hazardous Waste and Material Training Program" and "Transporter Contingency Plan". Periodic training seminars will also be held by the emergency coordinator for continuing training.
- II. Records.  
Introductory on-the-job training:

Type \_\_\_\_\_ Hours \_\_\_\_\_ Passed \_\_\_\_\_ Failed \_\_\_\_\_  
Comments -

Signed \_\_\_\_\_ Date \_\_\_\_\_

Employee: \_\_\_\_\_

Page \_\_\_\_\_

Continuing training seminars:

[illegible]

PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

for

Chemclene Corporation  
258 N. Phoenixville Pike  
Malvern, PA 19355

Date submitted:  
30 May 1981

Revised:  
18 April 1983

Submitted to:  
PA Dept. of Environmental Resources  
Bureau of Solid Waste Management  
Bureau of Water Quality Management  
P. O. Box 2063  
Harrisburg, PA 17120

## I. General Description of Activities.

- A. Chemclene Corporation, founded in 1946, is a distributor of chlorinated solvents, (Trichloroethylene, 1,1,1-trichloroethane, Perchloroethylene, Methylene Chloride). These materials are purchased from a number of manufacturers and resold to the end users. Materials are picked up from the manufacturer's terminals and placed in bulk storage at our facility in Malvern Pa. to be delivered either in small bulk or drums. These are the only chemicals we handle.
- B. The second part of our operation, which has been in existence since approximately 1958, is the reclamation of these solvents. Once used by our customers, the solvent is returned to our facility and reclaimed. The reclaimed material is either sold back to the customer or to another account. The still bottoms are drummed and shipped, at present, to the Chemical Waste Management landfill in Emelle, Al. We also presently handle (storage only) waste flammables and corrosives (EPA Hazardous Waste numbers F003, F005 & K062).
- C. Drawing of the facility (attached).

## II. Organizational Structure.

- A. Chemclene Corporation is a small, 5 employee corporation. W. Lloyd Balderston, President and King G. Graver, Vice-President are responsible for development and implementation of the PPC Plan. Both employees are responsible for the thorough knowledge of the plan and its implications in actual practice.
- B. Lloyd Balderston and King Graver comprise the PPC Committee. Their responsibilities have been assigned by the Board of Directors. Specific duties within the PPC Committee are as follows:

- Material Inventory
- Risk Assessment
- Spill Reporting Procedures
- Inspection Program
- Review of Past Incidents and Spills
- Incident abatement Coordination
- Incident notification
- Training and Education of personnel

- C. The PPC Plan shall be reviewed by the Committee quarterly or at any of the following times: (1) when accident occurs, (2) when significant changes occur in the facility or the process.

### III. Material and Waste Inventory.

#### A. Identification of chemical materials.

##### 1. Name, location and quantity

NAME	Location	QUANTITY
Trichlorethylene	Tank #4, #1	10,000 gal.
1,1,1-Trichloroethane	Tank #8	6,000 gal.
Methylene Chloride	Tank #C, #5	11,000 gal.
Perchloroethylene	Tank #3, #6	10,000 gal.

##### 2. Sources.

All materials are purchased at various times from the following manufacturers:

- a. Diamond Shamrock Corp.
- b. ICI Americas, Inc.
- c. ICC Industries, Inc.

##### 3. Process Wastes.

Chlorinated still bottoms from the recovery of the above identified chemicals are stored in drums. When approximately 80 drums are accumulated, they are shipped to the chemical waste management landfill in Emelle, AL or other approved waste disposal sites.

#### B. Physical, chemical, toxicological, health, and safety information.

Material safety data sheets and material technical bulletins are compiled, together with this plan and are placed at each emergency stations located at the facility.

### IV. House keeping Program.

#### A. Drums:

1. Filling - drums are never filled so as to cause leakage through the bungs as a result of expansion.
2. Inspection - drums are to be placed into storage, not even temporarily, without first allowing sufficient time to elapse to insure, via inspections, that the drums do not leak.
3. When placed into storage, drums are to be placed or stacked so that their contents label is easily readable.
4. All drums placed into storage are to be labeled to show contents and source.
5. Prior to placing a drum into storage, the floor in that area is to be cleaned so that should a leak occur it would be easily detectable.
6. Drums are to be stacked in rows such that, generally, the waste in each row is from the same source.

#### B. Removal of small spillage.

1. Where small spillage or leakage is detected, in an inspection tour or at any time, the PPC plan committee member most readily available is to be notified immediately.
2. Should the leak be from a drum, the drum is to be immediately removed and redrummed.
3. Should the seepage be from a tank, arrangements must be made immediately to drain the tank into an emergency tank.
4. The spilled material is to be cleaned up immediately using either absorbent pad or, if necessary, vacuum unit.

#### C. Floors

1. Floors are to be kept swept and free from contamination on a daily basis.
2. Walkways and pathways are to be marked out in yellow. Drums are not to be stored in any area so marked.

#### D. Garbage removal and disposal

1. Refuse is to be placed in a dumpster that is emptied at least once a week.
2. No spill cleanup materials are to be placed in the dumpster. These are to be accumulated in designated drums for proper disposal.
3. Appropriate housekeeping motivational posters are to be placed in designated areas where there is high employee visibility.

#### V. Security

##### A. Entrance to the facility is restricted by the following:

1. An entrance gate is locked when the facility is not active. The gate has the required warning sign permanently affixed.
2. Rear entrance is prevented by an 8 foot fence.
3. The entrance area is lighted at night.
4. The required signs are posted at intervals surrounding the facility.

- B. The entrance to the facility is adjacent to a residence. The occupant of the house is familiar with the facility, its operation and its personnel and thus acts as a night time observer of the facility.

## VI. External Factors

- A. Electrical outages. All process equipment is equipped with controls which will automatically shut down the equipment should the power fail. Level alarms on waste tanks would become inoperative during a power failure; these tanks will not be filled during this type of event.
- B. No other external factors could effect the operation resulting in a danger to public health and safety or the environment, short of an earthquake or thermonuclear event.

## VII. Internal and External Communications.

### A. Internal

- 1. The internal phone system will be utilized to communicate with other facility personnel.

### B. External

- 1. The telephone will be used to signal emergency assistance from local police, fire department or medical personnel.

## VIII. Employee Training Program.

### A. Process Equipment.

- 1. Equipment manuals are read by all employees and reviewed by the employee and newly accepted personnel.
- 2. On the job training under the guidance of management personnel, completes the equipment training program.
- 3. Manuals are available at the equipment so that operating personnel can refer to them at any time.

### B. Materials.

- 1. Chemclene Corporation does not process materials which are not compatible from reactive standpoint. We process only those materials indicated in III, A.
- 2. Employees are given material safety data sheets and material specification sheets as well as other operational information published by the manufacturers.
- 3. The potential health and safety aspects of the chemicals processed are discussed as a part of our quarterly training seminars. New information concerning these chemicals are also presented at that time: this includes impacts on the environment.

### C. Spill Prevention and Response.

- 1. Spill prevention procedures are included in the quarterly training seminars and updated as necessary. This PPC Plan is a major part of the spill prevention training.
- 2. Employees are trained by the simulation method, on the use of spill response equipment and procedures.
- 3. Employees are trained in the practice of inspecting drums, pumps and valve fittings to insure only sound materials are used.



## IX. Inspection and Monitoring

A. General statement. Chemclene's facility is very small and in the course of a normal day, managers and employees work in each area of the facility. Simply by working in each area, observation of potential hazardous or emergency causing conditions are made and immediate action is taken. To supplement and formalize the inspection process we have instituted formal inspections per the regulations.

### B. Inspection Program.

1. Tanks, pipes, pumps, valves and fittings are inspected for leakd or indications of seepage on a weekly basis.
2. Floors, conatinment dikes and housekeeping are formally inspected on a weekly basis.
3. Both #1 and #2 are observed on a daily basis by all employees in the course of their daily activity.

### C. Monitoring Program.

1. Chemclene Corporation has no equipment which has automatic feed devices, pressure buildup potential or over heat potential therefore recording type monitoring devices are not used
2. Liquid leverls in storage tanks are recorded manually on a weekly basis and whenever material is veing added to the tank. This insures ample capacity and prevents over filling. Waste tanks are equipped with level alarms.

## X. Preventive Maintainence.

- A. Tanks are tested nondestructively on a yearly basis to insure soundness in material of construction.
- B. Ample spare parts are kept on hand to repair any component of the process equipment.
- C. Spare pipe is inventoried so that replacement or repair of lines can be accomplished promptly if necessary.

## XI. Plant Operations.

- A. There are three areas where potential spills may occur. Firstly, the bulk loading and unloading area which has a concrete floor with a catch basin. Any material spilled would flow to the catch basis. Secondly the process area where drums are drained prior to reclamation is located on a concrete floor and is equipped with drip pans and absorbent. Thirdly the drum storage area is on concrete and is inspected daily. Absorbent is also located in this area which is totally contained by a structure that is capable of holding > 10% of the liquid stored. All 3 areas are under roof
- B. Drawing of the facility (attached).

## XII. Material Compatibility.

- A. Incompatible materials are stored in drums only. These drums storage areas are separated from each other by a containment system so that mixing of these material cannot occur. This material is usually received & shipped in the same drum. If redrumming is necessary a rinsed or reconditioned drum shall be used.
- B. Prior to accepting any material for processing, the material is analysed to insure it is, in fact, the waste we handle. The analysis process in one of the blocks of our training program. This will assure wastes are properly identified, separated and stored.

## XIII. Emergency Coordinators.

Primary:	Alternate:
W. Lloyd Balderston	King G. Graver
R.D. #2	R.D.#2
Chester Spring, Pa. 19425	Chester Spring, Pa. 19425
Office: (215) 644-2986	Office: (215) 644-2986
Home: (215) 469-9010	Home: (215) 469-9509

## XIV. Duties of the Emergency Coordinator.

### A. Immediate.

1. Notify all personnel and instruct them to carry out their respective emergency duties, (e.g. equipment shut-down, containment, etc.)
2. Determine exact nature of the emergency and notify external response agencies of personal, including the Pa. Depart. of Environmental Resource, should it be deemed necessary.

### B. If the aforementioned notification is deemed necessary, the report to the Department shall include:

1. Name of the person reporting the incident.
2. Name and location of the installation.
3. Phone number where the person reporting the spill can be reached.
4. Date, time and location of the incident.
5. A brief description of the incident, nature of the materials or wastes involved, extent of any injuries, and possible hazards to human health or the environment.
6. The estimated quantity of the materials or wastes spilled.
7. The extent of contamination of land, water, or air, if known.

### C. Immediately after an emergency the emergency coordinator with Departmental approval must provide for treating, storing, or disposing of residues, contaminated soil, etc. from an emission, discharge, fire, or explosion at the installation.

D. Within 15 days after the incident, the installation must submit a written report of the incident to the Department. The report must include the following:

1. Name, address, and telephone number of the individual filing the report.
2. Name, address, and telephone number of the installation.
3. Date, time, and location of the incident.
4. A brief description of the circumstances causing the incident.
5. Description and estimated quantity by weight or volume of materials or wastes involved.
6. An assessment of any contamination of land, water, or air that has occurred due to the incident.
7. Estimated quantity and disposition of recovered materials or wastes that resulted from the incident.
8. A description of what actions the installation intends to take to prevent a similar occurrence in the future.

XV. Chain of Command.

A. At Chemclene Corporation there are 4 employees including the officers. The officers are designated as emergency coordinators. Should an officer not be present at the time an emergency occurs the employees are instructed to contact an officer immediately.

XVI. List of Agencies to be Notified

A. PA DER	631-2400/(717) 787-4343
B. National Response	1-800-424-8802
C. U.S. E.P.A.	597-9898
D. U.S. Coast Guard	923-4320

XVII. Emergency Equipment

A.	Listing	Location	Use
1.	Absorbent Material (Sawdust, Hazorb)	1,2,4	1
2.	Chain Hoists (Manual)	1	2
3.	Chain Saw (Gas Operated)	1	2
4.	Chemical Neutralizers	1	3
5.	Fans	1	2,3
6.	Fire Extinguishers	1,2,3,4	3
7.	First Aid Kits	1,2,3	1,2,3
8.	Fork Lift	1	1,2
9.	Jacks	1	2
10.	Lighting Equipment	1	3
11.	Emergency Tanks	1,2,4	1
12.	Tank Truck	4	1
13.	Tools	1	1,2,3
14.	Vacuum Unit	2	1
15.	Tractor and Loader	4	1,2
16.	Self Contained Breathing Apparatus	1	1,3
17.	Gloves, Safety Glasses, Face Shields	1	1

Use key: 1, spill clean-up; 2, equipment moving; 3, fire.  
Location key: 1, main plant; 2, annex; 3, office; 4, truck shed.

B. B. Maintance and Decontaimination of Emergency Equipment.

1. Fire extinguishers are to be checked monthly for level.
2. After use, each piece of equipment which became contaimitated is to be cleaned with solvent. The solvent is to be collected for reclamation.

XVIII. Evacuation Plan

- A. All personnel are to leave the facility in the event an evacuation is necessary by the nearest exit and meet at predesignated location (the residence) approximately 100 feet from the building to await instructions.

XIX. Emergency Contractors.

- A. Each emergency contractor has been chosen because of his close proximity to the facility and because of his capability of handling the type of emergency which is most likely to occure. This type of emergency would be leakage or spillage onto the ground where immediate cleanup of liquid and saturated soil was necessary. Each contractor has been contacted at the inception of this plan.

B. List of Contractors.

- |                                     |          |
|-------------------------------------|----------|
| 1. J & J Spill Service and Supplies | 277-4511 |
| 2. Elderedge, Inc.                  | 436-4749 |
| 3. Inland Pumping & Dredging, Inc.  | 269-3900 |

XX. Agreements with State and Local Emergency Response Teams & Hospitals

Chemclene does not handle any material that requires special arrangements be made with State and Local emergency response teams. However, local emergency services (Fire & Ambulance) are familiar with Chemclene's location. The local police & fire departments have visited the facility & learned the details of the operation & the materials handled. (see attached copies of correspondence with these agencies). Their phone numbers and those of other emergency services are provided below:

East Whiteland Fire Co.	Fire and Ambulance	644-1224
East Whiteland Police	Security	647-1440
Chester County Emergency Management Agency	Coordination	431-6160
Chester County Health Department-Emergency	Corrdination	431-6225

## XXI. Pollution Incident History.

Due to a sampling program initiated by Chemcene Corporation it has been determined that the ground water in the immediate vicinity of the facility is contaminated with Trichlorethylene. The department was notified of this finding and a hydrogeological study is now underway to determine the extent of the problem. In general Chemcene has assumed the cause to be long term operation at this facility (since 1950). More specifically, sources of past contamination may have been the bulk truck loading and unloading area, the outside storage of drums of waste chlorinated solvent on a concrete slab and the disposal of condensate water from the process equipment (stills). The bulk truck loading and unloading area now has a concrete floor with a catchment trough, the outside storage of drummed waste has all but been eliminated (elimination should be complete within 90 days) and condensate water is now treated off-site prior to disposal.

## XII. Implementation Schedule

- A. Training Program - While all employees have received extensive on-the-job training, a formal, written training program will be completed and implemented within 60 days.
- B. Housekeeping Program - Delineation of aisle spaces will be completed within 30 days.
- C. Security - Locking gates, lights and regulation signs will be installed within 60 days.
- D. Emergency Equipment - Additional fire extinguishers, first aid kits, shovels, brooms and eye wash equipment and self contained breathing apparatus will be installed at additional locations within the facility within 60 days.

NOTE: As of the April 18, 1983 update of this PPC Plan, all of the above have been accomplished.

## CLOSURE

### A. General

Unlike a landfill, this facility does not have a finite life. Wastes will be stored and treated as long as there is a market for such services and as long as the permits are in effect. Therefore, it is not possible to give an expected life of the facility or an expected year for closure. There would be no partial closure of the facility.

### B. Closure Process

The primary activity involved in closure would be the removal or reclamation and removal of all wastes stored at the facility at the time of closure. If closure were to be initiated, no additional wastes would be accepted. Since all wastes and waste residues would be removed from the facility, there would be no need for post-closure maintenance.

For those wastes accepted for storage only or solidification only, the closure process would be to simply remove the wastes, transporting them to another HWM/TSD facility. For wastes which are accepted for recycling, closure would consist of the recovery of the solvents in these wastes and the subsequent treatment and off site disposal of the still bottoms.

3. Decontamination of the permitted portion of the facility would begin after all waste had been removed. All portions of the containment system which may have been contaminated would be sand blasted and the residue from this process would be disposed of as prescribed by regulation.

4. Tanks and equipment used to store or treat waste will be decontaminated with solvent washing or sandblasting. Sandblast residue will be handled as prescribed above and solvent residue will be

recycled. The final residue from this process would be disposed of at an off site facility.

#### C. Closure Schedule

It has been calculated that the maximum amount of waste which could possibly be stored at the facility at one time is as follows:

Recyclable waste*	----	65,680 gallons
Solidifiable waste	----	6,000 gallons
Other waste**	----	4,620 gallons

\* Here, it is assumed that all recyclable waste in storage is to be processed. In actuality, some of this waste will already have been recycled but the requirement is to develop a "worst case" plan.

\*\* This includes only the acidic corrosive and ignitable wastes.

Based on an average processing capacity of 550 gallons of recyclable per working day, it would take approximately 120 days to recycle all the waste in the facility. It is estimated that the decontamination process outlined above would take an additional 45 working days to complete. It is therefore estimated that the closure process would take 165 working days after the final volume of waste was received. During closure, all the precautions taken while the facility is open will be followed. When closure is completed, Chemclene Corp. will submit to the Pa. Department of Environmental Resources, a certification that the facility has been closed. This will be certified by Chemclene Corp. and by a registered professional engineer.

I-1f. Petition is hereby made to the Regional Administrator for an extension of the 90 day and 180 day requirements for closure. The times given in the Closure Plan have been carefully calculated and are realistic given that the facility will have maximum waste stored at the time of closure.



## FINANCIAL ASSURANCE

## A. Closure Plan Cost Estimate.

It is estimated that the total closure of the facility will taken 165 working days and will cost \$52,485.00. This cost includes the following factors:

Utilities	----	\$ 4,800
Labor	----	13,200
Maintenance	----	800
Decontamination	----	1,500
Disposal	----	<u>32,185</u>
Total	----	\$52,485

## B. Funding Mechanism

The funds to complete the closure plan will be provided from the revenues of Chemclene Corporation. If for some reason these funds are not available, additional funds will be provided by either a Trust Fund or a Letter of Credit as specified in the Federal Regulations. One of these mechanisms will be initiated at the appropriate time in the permitting procedure.

## C. Liability Insurance.

A copy of an Insurance Certificate is included as pages 75 thru 77.

# Certificate of Insurance



THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND DOES NOT AFFORD INSURANCE. THE CERTIFICATE HOLDER  
THIS CERTIFICATE DOES NOT AMEND, EXTEND, OR ALTER THE POLICY OR POLICIES AFFORDING THE COVERAGE DESCRIBED BELOW.

NAME AND ADDRESS OF AGENT

ENVIRONMENTAL COMPLIANCE SERVI  
P O BOX A  
D'TOWN PA 19335

NAME AND ADDRESS OF INSURED

CHEMCLENE CORP  
258 N PHOENIXVILLE PIKE  
MALVERN PA 19355

## COMPANIES AFFORDING COVERAGES

A	NATIONAL UNION INS C
B	NATIONAL UNION INS C
C	NATIONAL UNION INS C
D	NATIONAL UNION INS C
E	

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE DATE	Limits of Liability in Thousands (\$000)		
				PER OCCURRENCE	ANNUAL AGGREGATE	EXCESS
A	GENERAL LIABILITY	S9948751	7/15/83			
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					
	<input checked="" type="checkbox"/> PRODUCTS/OPERATIONS					
	<input checked="" type="checkbox"/> VEHICLE AND TRAILER LIABILITY					
	<input checked="" type="checkbox"/> UNEMPLOYMENT LIABILITY					
	<input checked="" type="checkbox"/> PRODUCT COMPLETED OPERATIONS HAZARD					
	<input checked="" type="checkbox"/> VEHICLE TRAILER LIABILITY					
	<input checked="" type="checkbox"/> BREACH OF CONTRACT LIABILITY					
	<input checked="" type="checkbox"/> PERSONAL AND ADVERTISING INJURY					
B	AUTOMOBILE LIABILITY	BA9392108	7/15/83			
	<input checked="" type="checkbox"/> COMPREHENSIVE LIABILITY					
	<input checked="" type="checkbox"/> OWNED					
	<input checked="" type="checkbox"/> HIRED					
	<input checked="" type="checkbox"/> NON-OWNED					
C	EXCESS LIABILITY	MU9160309	7/15/83			
	<input checked="" type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM					
	WORKER'S COMPENSATION and EMPLOYER'S LIABILITY	WC9200553	7/15/83			
	OTHER					

DESCRIPTION OF OPERATIONS, LOCATIONS, VEHICLES

**Cancellation:** Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 60 days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER

EPA REGION 3 ADMINISTRATOR  
6TH & WALNUT ST  
PHILADELPHIA PA 19106

April 21, 1983 N

*Gail Longarter*  
DIRECTOR OF OPERATIONS

1. NATIONAL UNION FIRE INS CO OF PITTSBURGH, (the "Insurer"),  
(Name of Insurer)

of 70 PINE ST., NEW YORK, N.Y. 10270 hereby  
(Address of Insurer)

certifies that it has issued liability insurance covering bodily  
injury and property damage to CHEMCLENE CORPORATION, (the  
(Name of Insured)

"insured"), of 258 N. PHOENIXVILLE PK. MALVERN, PA 19355  
(Address of Insured)

in connection with the insured's obligation to demonstrate financial  
responsibility under 40 CFR 264.147 or 265.147. The coverage applies  
at:

A. SAME AS ABOVE: EPA #PAD014353445

B. \_\_\_\_\_

C. \_\_\_\_\_

(EPA Identification #, name, and address of facility)

for sudden accidental occurrences. The limits of liability are  
primary and the company shall not be liable for amounts in excess of  
\$ 500,000 for each occurrence and annual aggregate limits of  
\$ 500,000, exclusive of legal defense costs. The coverage is  
provided under policy number S9948751, issued on 7-15-82.  
(Date)

The limits of liability are excess and the company shall not be liable  
for amounts in excess of \$ 2,000,000 ea occ \$ 2,000,000 agg.  
exclusive of defense costs. The coverage is provided under policy  
number MU9522696 issued on 7-15-82.  
(Date)

2. The Insurer further certifies the following with respect to  
the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve  
the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within  
any deductible applicable to the policy, with a right of reim-  
bursement by the insured for any such payment made by the Insurer.  
This provision does not apply with respect to that amount of any  
deductible for which coverage is demonstrated as specified in  
40 CFR 264.147(f) or 265.147(f).

(c) Whenever requested by a Regional Administrator of the U.S.  
Environmental Protection Agency (EPA), the Insurer agrees to furnish  
to the Regional Administrator a signed duplicate original of the  
policy and all endorsements.

(d) Cancellation of the insurance, whether by the Insurer or the  
insured, will be effective only upon written notice and only after  
the expiration of sixty (60) days after a copy of such written  
notice is received by the Regional Administrator(s) of the EPA  
Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of the thirty(30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

  
(Signature of Authorized Representative of Insurer)

GAIL E. LAMPARTER: ENVIRONMENTAL COMPLIANCE SERVICES  
(Type Name of Representative)

UNDERWRITER Authorized Representative of NATIONAL UNION FIRE  
(Title) (Name of Insurer)

INSURANCE CO OF PITTSBURGH ; 70 PINE ST., NEW YORK, N.Y. 10270  
(Address of Insurer)

## SECURITY

The entire facility is surrounded by an eight foot high chain link fence with barbed wire on the top or an eight foot high wood fence. The three gates in this fence are locked when the facility is not active. The entrance area of the facility is automatically lighted every night. At intervals around the facility warning signs are prominently displayed that read "Danger - Unauthorized Personnel Keep Out".

## INSPECTIONS

A. General inspection schedule for security devices and monitoring safety, emergency and structural equipment (including specific process inspections):

<u>Inspection Item</u>	<u>Potential Problems</u>	<u>Inspection Frequency</u>
1. Boundary Fence	Breaks in fence Inoperative gates & locks	Weekly
2. Waste tank level alarms	Inoperative	Weekly
3. Fire Extinguishers	Not fully charged. Unoperative trigger mech.	Yearly
4. Absorbant supply	Inadequate supply	Weekly
5. First Aid Kits	Missing Components	Weekly
6. Fork Lift	Not fully functional	Weekly
7. Emergency Tanks	Signs of cracks, corrosion or deterioration	Weekly
8. Tools	Missing Items	Weekly
9. Vacuum Tank Unit	Vacuum Pump inoperative. Signs of cracks, corrosion or deterioration of tank, deteriorating hoses	Weekly
10. Back-Hoe	Inoperative	Weekly
11. Sump Pumps	Inoperative	Weekly
12. Communications	Inoperative	Weekly
13. Gloves, Safety Glasses	Inadequate supply	Weekly
14. Waste Containers in Storage Areas	Signs of leaking or possible rupture	Weekly
15. Containment of Waste container storage areas	Cracks or other deterioration of floor & walls. Standing liquid wastes.	Weekly

<u>Inspection Item</u>	<u>Potential Problems</u>	<u>Inspection Frequency</u>
16. Waste Tanks	Tank Levels. Signs of leaking or corroding fixtures & seams. Lack of containment integrity. Interior condition	Daily Weekly Weekly Yearly
17. Loading & Un- loading Area	Lack of containment integrity, standing liquids & open precipitation drain valve.	Daily, when in use.

#### B. Remedial Action Procedures.

When, as a result of regular, scheduled inspection, or trained observation (during the course of operation) it is determined that an environmental or health hazard has already occurred, the procedures outlined in this facility's preparedness, prevention and contingency (PPC) Plan will be carried out immediately. In addition, remedial action to correct the problem shall commence immediately. Where a hazard is imminent, corrective action shall also commence immediately. Any deterioration or malfunction detected as a result of the above listed inspections shall be corrected according to the following schedule:

1. Boundary Fence & Emergency tanks: 14 working days.
2. Absorbant, vacuum tank unit, back-hoe: 10 working days.
3. Level alarms, fire extinguishers, first aid kits, fork lift, tools, sump pumps, gloves and safety glasses:
4. Communications: 2 working days.
5. Waste Containers and waste tanks: immediately.

6. Containment areas, including loading and unloading area:  
Immediately, if possible; otherwise within 21 working days (in the case of major reconstruction) or the effected area will be removed from service.

C. Construction Inspection.

The proposed loading/unloading area, waste tank and containment modifications shall be inspected during construction by a registered professional engineer who will provide a final written report as to the compliance of the finished construction with the design specifications and drawings.



# SAMPLE PAGE - WEEKLY INSPECTION LOG

1 JUN 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

1 JUN 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

5 JUN 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

15 JUN 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

1 JUL 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

1 JUL 82 TSD INSPECTION BY D.F.R. - PERMANENTLY COMPLETE WALK AROUND; NO NON-COMPLIANCE ITEMS FOUND; LOOKING AT MANIFESTS FOR LAST QTR W.H.B.

6 JUL 82 ROUTINE INSPECTION - UNIT UNDER REPAIR FOUND IN STORAGE AREA (< 1 GALLON LIT); RECOMMENDATION WITH DISCOUNT; ALL OTHER AREAS OK. W.H.B.

23 JUL 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

30 JUL 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

6 AUG 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

12 AUG 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

20 AUG 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

27 AUG 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

10 SEP 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

17 SEP 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

24 SEP 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

8 OCT 82 ROUTINE INSPECTION; NO REPORTABLE ITEMS. W.H.B.

## WASTE CHARACTERISTICS

### I. Halogenated Solvent Wastes

A. These are the waste halogenated solvents used in degreasing, specifically trichloroethylene, tetrachloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and the chlorinated fluorocarbons and the sludges from the recovery of these solvents in degreasing operations. The EPA Hazardous waste number is F001. These wastes are hazardous due to the toxicity of the halogenated solvents contained therein.

B. These wastes can also be the waste halogenated solvents, tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-dichlorobenzene, trichlorofluoromethane and the still bottoms from the recovery of these solvents. The EPA hazardous wastes is F002. These wastes are hazardous due to the toxicity of the halogenated solvents contained therein.

C. Also included in this category are the following off-specification materials listed with their corresponding EPA hazardous waste numbers: Trichloroethylene (U228), 1,1,1-trichloroethylene (U210), Methylene Chloride (U080), 1,1,1-trichloroethane (U226), chloroform (U044), carbon tetrachloride (U211), o-dichlorobenzene (U070), ethylene dichloride (U077), 1,1,2-trichloroethane, trichlorofluoromethane (U121) and chlorobenzene (U037). These materials are hazardous due to their toxicity.

D. A representative laboratory report for these wastes is contained in the appendix of this application.

## II. Non-Halogenated Solvent Wastes

A. These are the waste non-halogenated solvents xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, n-butyl alcohol, cyclohexanone and the still bottoms from the recovery of these solvents. The EPA hazardous waste number is F003. These wastes are hazardous due to their ignitability (flash point <140°F.)

B. These wastes can also be the waste non-halogenates solvents methanol, toluene, methyl ethyl ketone, methyl isobutyl ketone, carbon disulfide, isobutanol, pyridine and the still bottoms from the recovery of these solvents. The EPA hazardous waste number is F005. These wastes are hazardous due to their toxicity and ignitability.

C. Also included in this category are the following off-specification materials listed with their corresponding EPA hazardous waste numbers: acetone (U002), 1-butanol (U031), cyclohexane (U056), cyclohexanone (U057), ethyl acetate (U112), ether ether (U117), benzene (U019), isobutyl alcohol (U140), methyl ethyl ketone (U161), pyridine (U196), toluene (U220), xylene (U239) and methanol (U154). These materials are hazardous due to their toxicity and ignitability.

D. A representative laboratory report for these wastes is contained in the appendix of this application.

## III. Waste Water Treatment Sludges

These wastes are the solids precipitated out of electroplating solutions in the course of the chemical and physical treatment of these solutions. These sludges are neutralized, but contain various concentrations of heavy metals. Cyanides are not present. These wastes do not come from the following electroplating operations:  $\text{H}_2\text{SO}_4$  ano-

dizing of aluminum, tin plating on carbon steel, zinc plating on carbon steel, aluminum or zinc-aluminum plating on carbon steel, cleaning associated with tin, zinc and aluminum plating on carbon steel and chemical etching and milling of aluminum. These wastes are hazardous due to the toxicity of the metals contained therein. The EPA hazardous waste number is F006. No wastes of this type have yet been accepted by this facility and thus no laboratory report is available.

#### IV. Waste Ignitable Material

These are waste materials, either liquid, solid or gas with a flash point  $<140^{\circ}\text{F}$  that are not specifically listed as a hazardous waste. Some examples of these types of wastes are waste ethanol, paints and paint sludges, mineral spirits or petroleum naptha and kerosene. The EPA hazardous waste number is D001. These wastes are hazardous due to their ignitability. A representative laboratory report for these wastes is contained in the appendix of this application.

#### V. Waste Corrosives

A. These are waste liquid materials that exhibit the characteristic of corrosivity as defined in 75.261(g)(3) of the Pennsylvania Hazardous Waste Regulations but are not specifically listed as a hazardous waste. These wastes include aqueous liquids with a pH less than or equal to 2 or greater than or equal to 12.5, or most strong acids and bases. The EPA hazardous waste number is D002. No wastes of this type have yet been accepted by this facility and thus no laboratory report is available.

B. These wastes can also be spent pickle liquors from steel finishing operations. These are aqueous acid wastes that have a pH of  $<2$  and are designated by the EPA hazardous waste number K062. These wastes

are hazardous due to their general corrosivity and also due to the toxicity of heavy metals contained therein. A representative laboratory report for these wastes is contained in the appendix of this application.

#### VI. Heavy Metal Wastes

These are waste materials, either liquids or sludges, that contain the following metals and inorganic pigments:

<u>Contaminant</u>	<u>EPA Hazardous Waste Number</u>
Arsenic	D004
Barium	D005
Cadmium	D006
Chromium	D007
Lead	D008
Mercury	D009
Selenium	D010
Silver	D011
Chrome Yellow & Orange Pigments	K002
Molybdate Organic Pigments	K003
Zinc Yellow Pigments	K004
Chrome Green Pigments	K005
Chrome Oxide Green Pigments	K006
(Waste Water treatment sludges)	
Iron Blue Pigments	K007
Chrome Oxide Green Pigments	K008
(oven residue)	

These wastes are hazardous due to the toxicity of the heavy metals or metal containing pigments present. No wastes of this type have yet been accepted by this facility and thus no laboratory report is available.

## WASTE ANALYSIS PLAN

### I. General

Specific hazardous wastes from a specific generator that have never before been received by this Hazardous Waste Management Facility (HWMF) will be analyzed according to the procedure given below by this HWMF before the waste is accepted. At the discretion of this facility, the generator or an independent testing laboratory will be required to analyze the waste and report the results of the analysis as well as the methods of analysis, the later of which must be at least equal to the methods described herein. The first shipment of waste shall be inspected and analyzed, if necessary, to assure conformance to the sample. Waste from a specific generator that has been received before will also be analyzed periodically (usually each year), at the discretion of the operator of the HWMF to assure the waste has not changed substantially.

### II. Sampling Method

A. Drums - Each drum in the lot to be processed by this HWMF shall be sampled from top to bottom using a 7mm I.D. rigid stainless steel tube, open at both ends. The sampling tube shall be inserted into the drum to the bottom and withdrawn after the top end is closed to allow a tube full of waste to be removed. The resulting composite sample shall be no less than 1,000 ml. The composite sample shall be collected in a container that is compatible with the waste.

B. Tanks - Each tank in the lot to be processed by this HWMF shall be sampled as above (A) unless the tank has been agitated and a homogeneous mixture is assured. If the latter is the case, a dip sample shall be taken.

C. Solids or Sludges - If it can be assured the waste is a homogeneous mixture (as in the production of a waste water treatment plant that treats the same plating process), a simple scoop sample shall be taken. If homogeneity is not assured, one inch cores (surface of waste to bottom of container) from 3 different locations in the total volume of waste shall be taken and combined and mixed to form the sample for analysis.

D. The waste sample remaining after analysis shall be retained for 6 months and then disposed of using the appropriate disposal methods.

### III. Test Parameters and Methods

A. Specific Gravity - Specific gravity accurate to  $10^{-2}$  shall be measured using a standard hydrometer of the appropriate range (at 25°C). This shall be done for all wastes this HWMF is permitted to receive in order to give some general idea that the waste is what the generator claims it is. For example, this test will differentiate between waste lubricating oil and F002 waste due to the high specific gravity of the halogenated solvents.

B. Waste Phase - A representative sample of the waste shall be placed in a clear glass 25 ml graduated cylinder and allowed to stand undisturbed for at least 1 hour. After that time period, the sample shall be visually observed for the presence of any multiple liquid layers or physical phases (such as solids and liquids) and the volume of each phase or layer noted. This shall be done for all wastes this HWMF is permitted to receive as a guard against accepting a liquid that is 50% solid when the generator claims the waste was 100% liquid. This test will also indicate the presence of water layers in a non-aqueous waste.

C. Reactivity - A small amount (250 ml) of the waste sample shall be placed in an open 500 ml beaker. Five ml of distilled water shall then be introduced, dropwise, and the mixture observed for the generation of heat or gases or other signs of reactivity. The results of this analysis will guard against the receipt of any reactive waste and will be performed on all waste samples.

D. Ignitability - A 100 ml sample of the waste will be warmed to 140°F. in an open, metal cup. Upon reaching the desired temperature, a small flame will be passed across the top of the open cup. If the vapor in the cup flashes or ignites, the sample will be defined as ignitable or flammable. This analysis will be performed on all samples except K062 to assure that all ignitable waste is properly identified so it may be handled appropriately.

E. pH - The pH of the waste sample shall be measured using indicating pH paper calibrated to whole pH units. If the sample is non-aqueous, 5 ml of the sample shall be vigorously shaken with 1 ml of distilled, unbuffered water for 1 min. and allowed to stand long enough for the water to separate. The resulting water layer shall be analyzed for pH as above and the results taken as the pH of the original waste sample. This analysis will be performed on all samples to assure proper classification and storage of corrosives.

F. Solvent Contents - F001, F002, U044, and U019 waste samples shall be distilled in the laboratory using an electrically heated glass distillation apparatus. For each sample distillation the sump shall be heated to at least 130°C. The total distillate collected shall be taken as the amount of solvent in the original sample.



G. Composition of the solvent content - The distillate produced by the laboratory distillation shall be analyzed using gas-liquid chromatography. The following parameters shall be employed: Column, 1/8 inch x 20 foot SS UNCON 1800 LB; temperature program, 50-130°C/Min; Flame ionization detector.

H. Heavy Metal Content - The following wastes shall be analyzed for heavy metal concentrations: F006, D004, D005, D006, D007, D008, D010, D011, K002, K003, K004, K005, K006, K007, K008, K062. These analysis shall be performed as described in "Test Methods for Evaluating Solid Waste" (SW846) for the specific metal of interest. The metals to be analyzed for shall be antimony, arsenic, barium, cadmium, chromium, lead, mercury, nickel, selenium and silver. This analysis will indicate if the sample should be classified as EP toxic.

#### IV. Record Keeping

A. The results of each analysis shall be recorded on a waste analysis report and retained at this HWMF or another approved location for a period of 20 years.

## IGNITABLE AND INCOMPATIBLE WASTES--HANDLING AND STORAGE PRECAUTIONS

### I. Ignitable Wastes

Ignitable Wastes will be stored and handled in areas that are protected from sources of ignition such as open flame, smoking, cutting and welding, hot surface, frictional heat, sparks, spontaneous ignition and radiant heat. These sources shall be kept at a distance of at least 10 feet. The receiving and storage areas of this facility shall have "no smoking" signs posted at all times. Both of these areas are normally separated from all sources of ignition.

Precautions will be taken to assure no operating trucks (engine on) are adjacent to the receiving area while any containers of ignitable waste are open. This type of waste will be stored in closed drums (DOT 17E/17H) only, with the exception of solid or solidified ignitable wastes. In the case of the latter, storage will occur in a separate building (see location of proposed building on facility drawing. Drum storage shall be in a separate containment area such that the provisions of 75.264(q)(14)(i) are met. This is an indoor storage area (See facility drawing) that is well ventilated and remains cool even during conditions of high ambient temperatures (due to climatic conditions). A fire extinguisher is located within 20 feet of the storage and receiving areas as are communications to the fire company.

### II. Incompatible Wastes

These wastes are stored in drums only. The storage area is designed so that these wastes cannot mix if a leak should occur. (See facility drawing) These wastes are kept at least 5 feet apart during receiving and sampling to minimize mistaken mixing. If these wastes must be

redrums for any reason, rinsed or reconditioned drums are used if the residue in the empty drum is not compatible with the waste to be redrums. The 6,000 gal. waste tank will only be used to store compatible wastes (F001 & F002 only). Current waste analysis or records of analysis for specific incoming wastes from a specific generator will assure nothing else is put into this tank. In addition, the tank will be labeled as to the type of wastes it is permitted to contain.